

THE STRUCTURAL TRANSFORMATION OF INDIAN ECONOMY: A CRITICAL ANALYSIS

SRAVANTHI KOLLA¹, VENU B. N² & UMESH K. B³

^{1, 2}Research Scholar, Department of Agricultural Economics, College of Agriculture, UAS, Bangalore, Karnataka, India

³Professor, Department of Agricultural Economics, College of Agriculture, UAS, Bangalore, Karnataka, India

ABSTRACT

In India structural transformation is occurring i.e. decline in agriculture employment infamous of non agriculture employment. But this form of structural transformation is stunted over many years. One of the reasons is creating employment in un-organized sector where there is no scope of health, employment insurance and pensions. This structural transformation is in quite different from trends in China, where population growth rates are near to zero and rapid growth of manufacturing sector with high labour intake and other urban sectors have attracted people from rural to urban areas. In spite of rapid economic growth, India's structural transformation is constrained by the weakness of employment growth in the urban economy, especially in labour-intensive manufacturing.

The divergence rate between rural and urban areas in poverty, per-capita income and consumption has been prevented by structural transformation from agriculture production and employment towards non-agriculture. Rural poverty reduction, rural non-farm sector growth and agricultural and rural wages are continued to be driven by the agricultural growth and productivity. A sustained higher level growth in agriculture and agriculture productivity would be extremely helpful for rural areas. As a consequence, rural welfare can be determined by agricultural and rural development policies, institutions, and programmes.

KEYWORDS: Structural Transformation, Employment, Poverty, Growth, Agriculture, Equality

INTRODUCTION

According to three sector hypothesis developed by Colin Clark and Jean Fourastié, generally the structure of an economy includes three major sectors i.e. primary, secondary and tertiary sectors. The primary sector of the economy is the sector of an economy making direct use of natural resources. This includes agriculture, forestry, fishing, mining, and extraction of oil and gas. The secondary sector of the economy or industrial sector includes those economic sectors that create a finished and tangible product. The tertiary sector of the economy also known as the service sector or the service industry and its basic characteristic is the production of intangible goods (Clark, 1957) and (Fourastie, 1949).

Structural transformation is the defining characteristic of the development process; it is both the cause and effect of the economic growth. Peter Timmer defined structural transformation through four quite relentless and interrelated processes (www.ifpri.org).

- A declining share of agriculture in gross domestic product (GDP) and employment.
- The rise of a modern industrial and service economy.

- A demographic transition from high to low rates of births and deaths.
- The rapid process of urbanization as people migrates from rural to urban areas.

The final outcome of structural transformation is an economy and society where agriculture as an economic activity has no distinguishing characteristics from other sectors, at least in terms of the productivity of labor and capital, or the location of poverty.

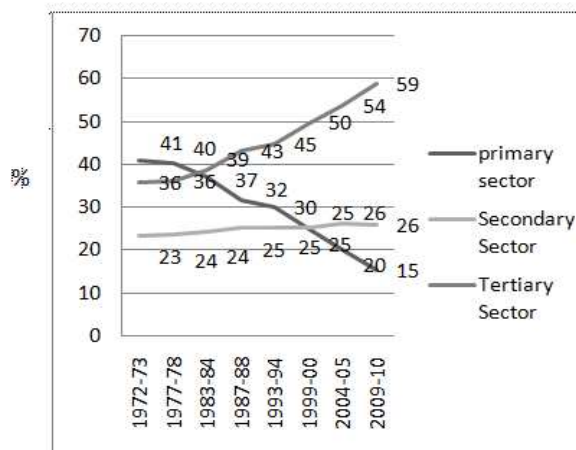
Agriculture dominated in terms of economic output and labour force out of total gross domestic product and total employment in the entire industrialized world prior to structural transformation and rapid economic growth. Due to drastic increase in productivity of non agricultural sector relative to agriculture sector, the sectoral share of agriculture in total GDP and labour force has decreased. It led to the sharp decline in farm incomes compared to non farm economy. In the process of structural transformation, based on labour intensity of industry and services, the labour will be attracted from agriculture sector to non agriculture sector. A point will be reached where the share of agriculture in total labour force and GDP will be converged there by labour productivity differential between sectors starts to diminish.

This article mainly discusses why even though there was increase in labour productivity differential between agriculture and non agriculture sector and limited rural-urban migration but divergence in rate of poverty, per capita income and consumption is not increasing? The above question will be explained in the section on the rural nonfarm enterprises of farmers and associated employment growth. The article finally concludes that the India's structural transformation is a stunted one after summarizing findings on employment and poverty trends across sectors of economy.

India's Structural Transformation:

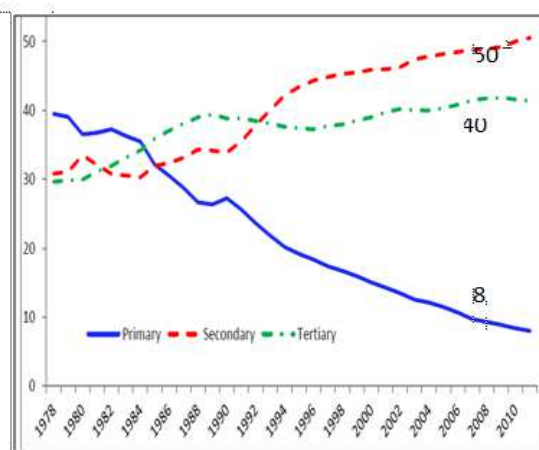
India's structural transformation is slow and different compared to other developing countries like China, because of low share of manufacturing (secondary sector) in economy's growth and total work force. From Figure 1 we can observe that the share of agriculture (primary sector) in GDP has declined but industrial and service sectors have shown growing GDP. Primary sector share has declined sharply from 41 per cent to 15 per cent over a period of 40 years. Tertiary sector has lion share in total GDP that has increased from 36 per cent to 59 per cent from the period of 1972-73 to 2009-10. But secondary sector has shown marginal growth that is from 23 per cent to 26 per cent. In respect of China the sectoral GDP shares were depicted in Figure 2. Secondary sector is the major contributor in China's GDP from past 35 years its contribution raised from around 30 to 50 per cent. Followed by service sector where its contribution raised from 30 to 40 per cent.

Primary sector contribution declined drastically to less than 10 per cent. Thus from both figures we can conclude that India's manufacturing sector did not grow as it was expected even after reforms even though service sector has been showing significant growth and primary sector showing declining trend.



Source: Papola and Sahu, 2012.

Figure 1: India's Sectoral Share in GDP (%)

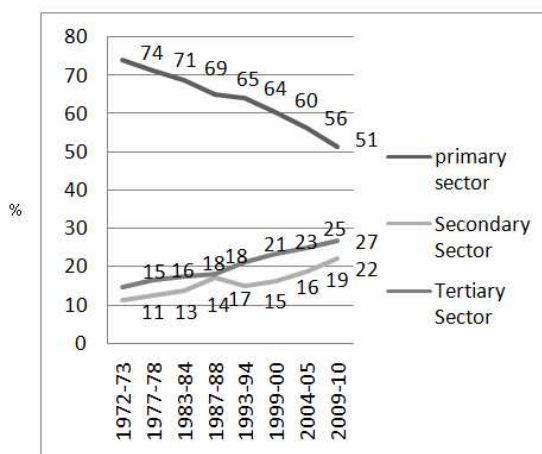


Source: Haltmaier, 2013.

Figure 2: China's Sectoral Share in GDP (%)

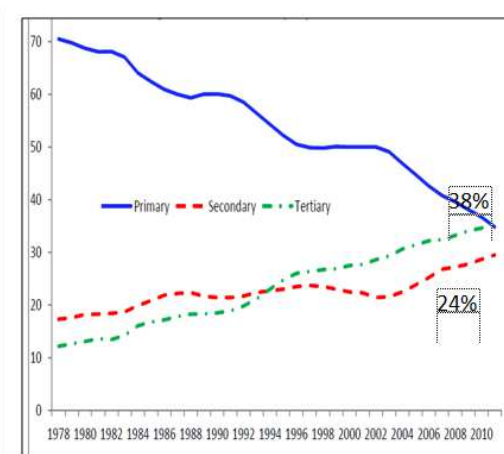
Share of each sector in India's total work force was depicted in Figure 3. Primary sector is providing livelihood for more than 50 per cent of the total work force. Over the years its share declined from 74 per cent to 51 per cent. Secondary and tertiary sectors are providing employment for 22 per cent and 27 per cent of total work force respectively.

In Figure 4 China's sectoral share in employment has shown, both tertiary and primary sectors are providing employment for around 38 per cent of the total work force and secondary sector accounts for 24 per cent of the total work force. Even though economy of both the countries is growing rapidly, In India still half of total work force depend on agriculture. Thus in India both service and manufacturing sector is unable to provide employment that it might have provided. Whereas in China the per cent share of employment by both primary and tertiary sectors has converged. But at the same time from figure 1 and 2 we observed that share of GDP by primary sector is decreasing rapidly in both the countries but in terms of employment in India compared to China large section of people are still depending on agriculture.



Source: Papola and Sahu, 2012

Figure 3: India's Sectoral share in Employment (%)

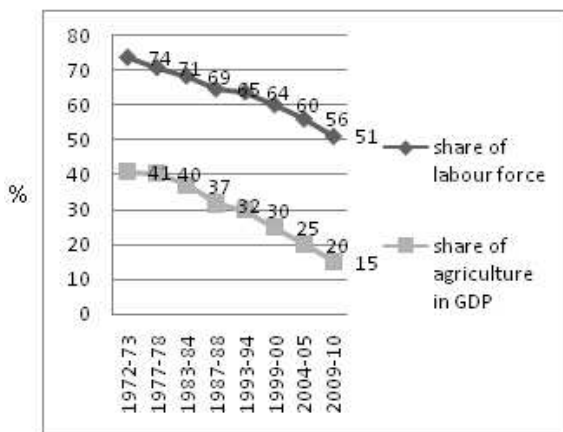


Source: Haltmaier, 2013.

Figure 4: China's Sectoral Share in Employment

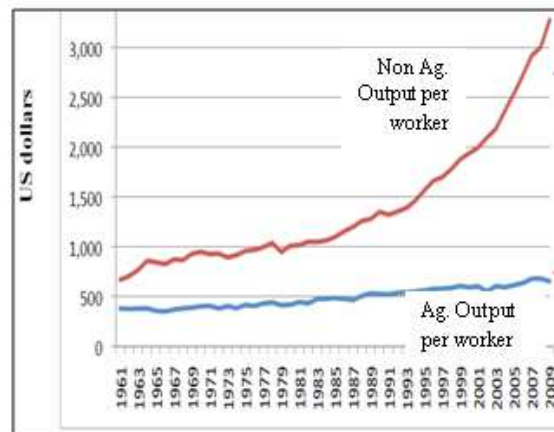
In India labour absorption by the urban economy and rural-urban migration has been far less than that can be expected in a rapidly growing economy. Therefore, the difference between the share of agriculture in GDP and labour force has widened significantly this can be observed in Figure 5. The rapid growth of economy from 30 years did not

contribute to agriculture growth. Due to low agriculture growth, high non-agriculture growth, high labour force depend on agriculture the labour productivity differential between the non agriculture and agriculture sectors has widened at increasing rate.



Source: Papola and Sahu, 2012

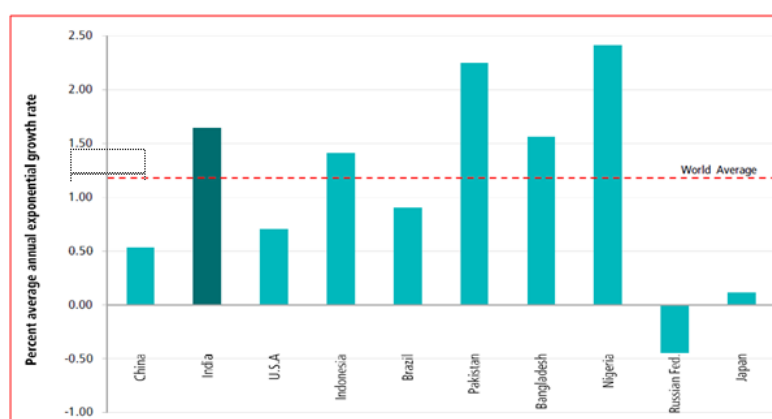
Figure 5: Share of Agriculture in Labour



Source: Binswanger, 2012.

Figure 6: Agriculture and Non Agriculture Output per Worker in India

The agriculture labour force is showing slow decline due to relatively high population growth rate in India i.e. 1.6 from 2000 to 2010 which is more than the world average, this can be observed in Figure 7. On the other side China's population growth rate is around 0.5. Low rate of rural to urban migration is another reason for slow decline in the agriculture labour force. In table 1 we can observe that the intra-state rural to urban migration, which is twice as much as the inter-state rural to urban migration in 1971-1981 remained stagnant during the 1990s. The inter-state rural to urban migration showed an accelerated growth, but its volume was not enough to stall the declining trend in urban growth during the 1990s. Conversely, in China, rural-urban migration has involved around 220 million workers in the past twenty years. In India, the poor development of labour-intensive manufacturing has led to adverse urban employment consequences.



Source: http://censusindia.gov.in/2011-prov-results/data_files/india/Final_PPT_2011_chapter3.pdf

Figure 7: Population Growth Rate, India and Selected Countries 2000-2010

Table 1: Size and Growth Rates of Migrants by Streams in India

Migration Streams	2001 (in Millions)	Growth Rate (%)		
		1971-1981	1981-1991	1991-2001
Intra State				
Rural to rural	48.8	14.8	0.2	12.2
Rural to urban	14.2	47.8	6.7	7.3
Urban to rural	5.2	29.4	-4.8	1
Urban to urban	9.8	50	-11.2	23.6
Inter-State				
Rural to rural	4.4	12.1	3.4	54
Rural to urban	6.3	22.8	20.1	76.5
Urban to rural	1	14.1	9.6	11.2
Urban to urban	4.4	18	6	24.3

Source: Bhagat and Mohanty 2009.

GROWTH OF AGRICULTURE AND AGRICULTURE PRODUCTIVITY

Agriculture growth, productivity and labour force across different years are mentioned in table 2. Due to green revolution the 1980s period can be considered as golden era in Indian agriculture. Where the growth of agriculture GDP was 3.3 per cent, labour productivity 2.3 per cent, and total factor productivity (TFP) growth was two per cent and all the indicators are at peak. But since 1980 the TFP growth rate of agriculture in China has been persistently higher than in India, close to and more than 3 per cent in all three decades since, where as in India all indicators were in downward trend.

Table 2: Growth of Agriculture, Agricultural Productivity and Labour Force

Indicator	Growth Rates for Decades in Percentage				
	1960-70	1971-80	1981-90	1991-2000	2001-09
Agricultural GDP growth	3.8	1.5	3.3	2.7	2.8
Growth of agriculture output/worker	0.6	0.4	2.3	1.2	1.1
Total factor productivity (TFP) growth	0	0.8	2	1.5	1.9
TFP growth in China	0	0	2.8	4.2	2.7
Total population growth	2.1	2.3	2.2	2	1.6
Agricultural labour force growth	1.4	1.7	1.6	1.4	1.2
Non-agricultural labour force growth	2.7	3.2	3.7	3.2	3.1

Source: Binswanger, 2013.

EMPLOYMENT, UNEMPLOYMENT AND WAGE TRENDS

Rapid movement towards a structural transformation should show up by an increase in opportunities for rural-urban migration and tightening of the rural labor market but this is also not happening, instead rural households are diversifying into the rural non-farm sector. The limited absorptive employment capacity of the urban economy has led the non-farm sector to become the main destination of growing rural labor forces.

Rural and Urban Employment Trends

Since 1983 there is only limited fluctuation in rural male labor participation. There was significant increase in female rural and urban participation rate in early years of this century, and since then they have gone down to the lowest level over the entire period. The increased labour participation rate by women between 1999-00 and 2004-05 was interpreted by Himanshu (2011) as a result of agrarian crisis of the period. Due to improvement in economic conditions there was withdrawal from labour markets that led to sharp drop in labor participation in 2009-10. Other major reason for withdrawal from labour market was increase in participation in education. Choudhury 2011 shows that in both rural and

urban areas there are some common trends: a slight decline in the manufacturing share of employment, which is consistent with the constancy of the manufacturing share in the Indian economy, and its far slower growth in the past decade than planned; the decline in the share of agriculture and allied industries; and the sharp increase in construction; trade, hotels and restaurants are a very large share of the labor force in urban areas, much smaller in rural areas, and in both areas they have stayed fairly constant. As shown in table 3, employment in India in 2008 was very much concentrated in the informal sector. Between 1999-2000 and 2004-05 the proportions of workers in the formal sector declined from 8.8 to 7.5 per cent. Within the organized (formal) sector, the proportion of employees with informal contracts rose from 37.8 per cent to 46.7 per cent. Clearly, the Indian labor market has shown a marked tendency to informalization of labor relationships, and only limited creation of high quality jobs for urban workers as well as for migrant from rural areas. Employment in the rural non-farm sector has followed the trend to informalization as well (World Bank, 2010).

Table 3: Distribution of Workers by Type of Employment and Sector Organization (in Million)

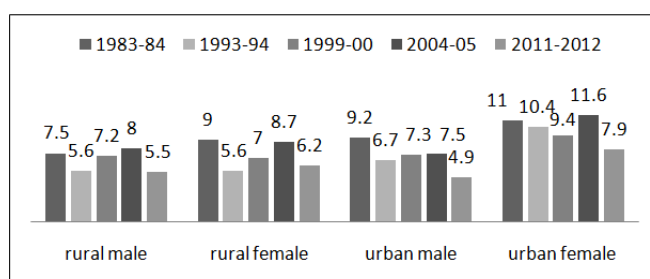
Sector	1999-2000			2004-05		
	Informal Sector	Formal Sector	Total	Informal Sector	Formal Sector	Total
Informal workers	341.28 (99.6)	1.36 (0.4)	342.64 (100)	393.47 (99.64)	1.43 (0.36)	394.9 (100)
Formal workers	20.46 (37.8)	33.67 (62.2)	54.12 (100)	29.14 (46.58)	33.42 (53.42)	62.57 (100)
Total	361.74 (91.17)	35.02 (8.83)	396.76 (100)	422.61 (92.38)	34.85 (7.46)	457.46 (100)

Source: Binswanger, 2012.

Urban employment growth particularly in the manufacturing sector has been inadequate to provide enough employment opportunities for workers from rural areas. The attractiveness of urban areas for rural migrants had reduced sharply due to the great informality of employment in the organized sector and the deepening of urban poverty, especially for unskilled and semi-skilled ones. Urban areas are able to attract mainly highly skilled labour, where as workers are piling up in rural areas.

Unemployment and Wages

According to Chowdhury 2011, in 2011-12 the current daily status (CDS) unemployment rates were the lowest for urban males 4.9 per cent, followed by rural males at 5.5 per cent, 6.2 per cent for rural females and 7.9 per cent for urban females, see Figure 8. They were higher for 2004-05, which is one reason that for an interpretation of the growth of labor participation in the period preceding that year as a partly or fully driven by distress (World Bank 2010, Himanshu, 2011). Today urban unemployment rates are lower than the rural unemployment rates than in the 1990s. Yet the urban labor market, it is still very antagonistic for females, and therefore must remain a restraint to rural-urban migration.



Source: Chowdhury and Subhanil, 2011

Figure 8: Unemployment Rate (CDS) for All Workers in India (in %)

From table 4 we can observe that, the growth rate of real agricultural wages decreased between 1980 to the middle of the last decade, but has started to increase recently. Since then real wages in the entire economy have risen. The fastest real wage growth is observed for urban female salaried workers at 7.8 per cent, followed by rural female casual workers at 6.2 per cent and by urban male salaried workers. Since female participation rates fell, rising wages are consistent with a voluntary withdrawal of females from labor markets, either as a consequence of growing family income and/or greater participation in education. Wages of casual male workers rose at 4.5 per cent in rural areas and 4.2 per cent for urban males.

Table 4: Average Daily Real Wage Rate for Workers (in 2004-05 (Rs))

Year	Rural		Urban	
	Male	Female	Male	Female
Regular salaried				
2004-05	145	86	203	153
2009-10	165	103	260	213
Growth rate	2.8	4.2	5.6	7.8
Casual				
2004-05	55	35	75	44
2009-10	67	46	91	53
Growth rate	4.5	6.2	4.2	4.1

Source: Binswanger, 2013.

DIFFERENCES IN POVERTY, INEQUALITY, INCOMES AND CONSUMPTION OF RURAL AND URBAN POPULATION

The important dilemma raised from the above analysis is, for the past decades, economy is growing at the rate of more than eight per cent. The labour productivity differential has increased between different sectors; between the period of 1990 and 2005 agriculture has grown at a snail's pace; in the same period agricultural productivity growth also dropped, urban employment opportunities have grown slowly for lower skilled workers and for women, and migration has been slow. From above reasons we expect that a mounting differential between urban and rural per capita incomes and consumptions and poverty rates. But, this has not been happened. From Table 5 the rural poverty rate declined from 50.1 per cent in 1993-94 to 41.8 per cent in 2004-05 and to 25.7 per cent in 2011-12 or by 24.4 per cent, while urban poverty declined from 31.8 per cent to 25.7 per cent and to 13.7 in 2011-12 or by 18.1 per cent. In absolute terms, the decline in rural areas was larger than in urban areas, but in relative terms, the rate of poverty decline in urban areas was slightly faster than in rural areas. These trends are inconsistent with a growing divergence of rural and urban poverty.

Table 5: Changes in Rural and Urban Poverty Rates

Year	Poverty Ratio (%)		Number of Poor (Million)		
	Rural	Urban	Rural	Urban	Total
1993-94	50.1	31.8	328.6	74.5	403.7
2004-05	41.8	25.7	326.3	80.8	407.1
2011-12	25.7	13.7	216.5	52.8	269.3
Difference between 1993 to 2011	24.4	18.1			

Source: Press Note on Poverty Estimates, 2011-12.

In Table 6 the data on consumption suggest that the urban-rural ratio of mean consumption increased from 1.54 in 1983 to 1.72 in 2004-05 and 1.69 in 2009-10. Data suggest that there was no sharp change in urban rural consumption over

the past three decades. Given the significant increases in the non-agricultural to agricultural productivity differential and the slow rural-urban migration, it is surprising that the urban-rural gaps in poverty, per capita income, and consumption have not increased sharply.

Table 6: Consumption Inequality in India

Gini Coefficient of Distribution of Consumption	1983	1987-88	1993-94	2004-05	2009-10
rural	0.3	0.3	0.28	0.3	0.28
urban	0.3	0.35	0.34	0.37	0.37
urban-rural ratio of mean consumption (constant prices)	1.54	1.44	1.64	1.72	1.69

Source: Binswanger, 2013.

Drivers of Rural Poverty Reduction

Ravallion and Datt (2004) argued that prior to reforms rural growth remains significant for reducing rural poverty and national poverty. But since 1991, when economic growth started to accelerate, urban growth has become the major driver not only of urban poverty reduction, but also national and rural poverty reduction. Datt and Ravallion's new findings suggest that a spillover has emerged from more rapid urban growth to rural growth this can be observed from table 7.

Table 7: Elasticities of Poverty with Respect to Urban and Rural Growth: 1951-2006

		National Poverty	Urban Poverty	Rural Poverty
Headcount index				
Urban growth	Pre-91	-0.09	-0.85	0.13
Rural growth	Pre-91	-1.11	-0.35	-1.29
Urban growth	Post-91	-1.21	-1.26	-1.26
Rural growth	Post-91	-0.66	-0.08	-0.9

Source: Datt and Ravallion, 2009.

During the period 2004-05 growth of agriculture had slowed down, the spillover effect might have been felt primarily on the non-farm sector. Himanshu et al (2011) proved that one per cent increase in non-farm employment of rural adults significantly reduces rural poverty by 3.4 per cent when region effect get fixed see table 8.

Table 8: Factors Effecting Rural Poverty and Agricultural Wages

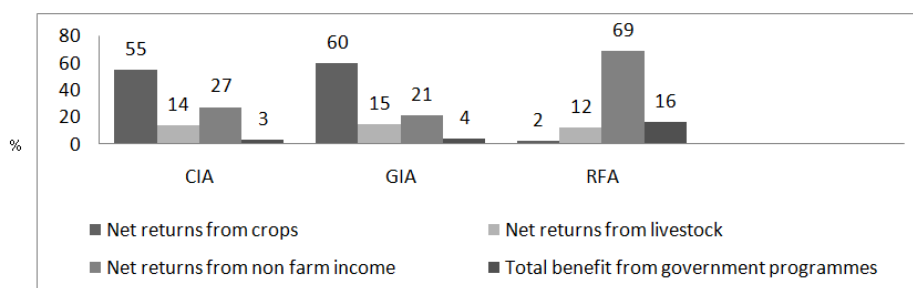
	ln(Regional Poverty Rate)		ln(Real Agricultural Wage, Rs per day)		
	(1)	(2)	(3)	(4)	(5)
ln(real ag wages)	-1.09 (8.02)***	-0.7 (3.88)***	---	---	---
ln(yield)	-0.45 (3.36)***	-0.62 (2.81)***	0.35 (4.68)***	0.14 (1.14)	0.14 (1.21)
ln(real urban mean per capita expenditure)	-0.31 (1.98)**	-0.41 (1.98)*	0.06 (0.66)	-0.04 (0.40)	-0.08 (0.76)
ln(land per capita)	-0.14 (2.53)**	-0.11 (1.66)*	0.03 (0.90)	0.02 (0.45)	0.01 (0.38)
Year=1993	0.22 (3.02)***	0.16 (1.58)	0.28 (7.54)***	0.35 (7.85)***	0.34 (7.60)***
Year=2004	0.25 (2.40)**	0.19 (1.11)	0.45 (9.54)***	0.58 (8.26)***	0.57 (7.41)***
<i>Nonfarm variables</i>					
ln(nonfarm employment per adult)	0.74 (2.07)**	-3.4 (2.27)**			1.37 (1.72)*
ln(nonfarm sh.)**% with below primary education	-0.7 (1.78)*	3.87 (2.31)**			-1.52 (1.69)*
Constant	4.61 (4.55)***	4.1 (2.90)***	1.66 (3.14)***	2.63 (3.89)***	2.98 (4.21)***
Fixed effects	State	Region	State	Region	Region
R-squared	0.81	0.89	0.87	0.94	0.94

Source: Himanshu et.al, 2011.

Notes: absolute value of t statistics in parentheses * significant at 10%; ** significant at 5%; *** significant at 1%.

Datt and Ravallion (2009) found that agricultural growth remains an important determinant of rural poverty reduction. These findings are supported by the regression analysis of Himanshu et al (2011) that showed higher yields are associated with declining rural poverty (table 8), suggesting the impact of agricultural productivity growth on poverty reduction remains high. They also show a strong and negative correlation between agricultural wage growth and rural poverty. This impact can be expected as half of India's overall poverty population is agricultural workers. From this we can conclude that even though there was a rising disparity in inter sectoral labour productivity there was no significant divergence of poverty, consumption and per capita incomes between rural and urban areas. Consumption inequality has recently increased in urban areas, but stayed fairly constant in rural areas. Before 1991 rural growth and agriculture were the main drivers of poverty reduction after reforms urban growth has become important driver of poverty reduction overall, even in rural areas (Datt and Ravallion (2009)).

Non-farm employment opportunities are not only increasing for farmers with endowments like irrigation facilities but also to the poor rainfed farmers. Sravanthi (2012) found that Non-farm income is contributing around 28 per cent of average annual net income in case farmers with canal irrigation facility followed by 21 per cent for farmers with ground water irrigation facility, whereas in case of rainfed farmers it is contributing around 69 per cent. This can be observed from figure 9. Due to low income from Agriculture most of the rainfed farmers are involving in nonfarm activities like construction works, transport etc. Along with non farm income in rainfed areas benefit from government programmes is also contributing significantly.



Source: Sravanthi, 2012.

Figure 9: Comparison of Composition of Net Income per Farm Family among Irrigated and Rainfed Farmers

CONCLUSIONS

In India structural transformation is occurring i.e. decline in agriculture employment in favour of non agriculture employment. But this form of structural transformation is stunted one because it is creating employment in un-organized sector where there will not be any benefit of health, employment insurance and pensions. This structural transformation is quite different from trends in China, where population growth rates are near to zero and rapid growth of manufacturing sector with high labour intake and other urban sectors have attracted people from rural to urban areas. Farms are operated increasingly by old farmers particularly women. Due to spillovers from rapid urban growth to rural areas and rapid agriculture growth the non-farm sector has emerged as an active sector. Urban and rural wages started to grow very rapidly at around the same time as Indian rural wages, but the speed of real wage growth is faster. In spite of rapid economic

growth, India's structural transformation is constrained by the weakness of employment growth in the urban economy, especially in labour-intensive manufacturing.

The divergence rate between rural and urban areas in poverty, per-capita income and consumption has been prevented by structural transformation from agriculture production and employment towards non-agriculture that happened due to urban spillovers to rural non-farm self employment. Continued high urban economic growth is therefore important for rural income growth. But still rural poverty reduction, rural non-farm sector growth and agricultural and rural wages are continued to be driven by the agricultural growth and productivity. A sustained higher level growth in agriculture and agriculture productivity would be extremely helpful for rural areas. As a consequence, rural welfare can be determined by agricultural and rural development policies, institutions, and programmes.

REFERENCES

1. Anonymous, (2013). Press Note on Poverty Estimates, Government of India Planning Commission
2. Bhagat R.B. & Mohanty, S, (2009). Emerging Pattern of Urbanization and the Contribution of Migration in Urban Growth in India, *Asian Population Studies* 01/2009, 5: 5-20, London.
3. Binswanger M, (2012). India 1960-2010: Structural Change, the Rural Non-farm sector, and the Prospects for Agriculture, *Stanford Symposium Series on Global Food Policy and Food Security in the 21st Century*, Center for Food Security and the Environment, Stanford University, Stanford.
4. Binswanger, M., 2013, The Stunted Structural Transformation of the Indian Economy Agriculture, Manufacturing and the Rural Non-Farm Sector. *Economic and Political Weekly*, 4: 5-13.
5. Chowdhury & Subhanil, (2011). Employment in India: What Does the Latest Data Show?. *Economic and Political Weekly*, 46: 23-26.
6. Clark C., (1957). "Conditions of Economic Progress", Macmillan, London.
7. Datt, G., & Ravallion, M., (2009). Has India's Economic Growth Become More Pro poor in the Wake of Economic Reforms?. *Policy Research Working Paper 5103*, World Bank, Washington DC.
8. Deepak, K. & Vivek, B, (2012). Employment Trend in India 1983 to 2009-10. *Voice of research*, 1:21-35
9. Fourastie, J, (1949). *Le Grand Espoir du XXe Siecle*. Progress Technique, Progress Economique, Progress Social. Paris, Presses Universitaires de France, 224 p.
10. Himanshu, Peter Lanjouw, Abhiroop Mukhopadhyay & Rinku Murgai, (2011). Non-farm Diversification and Rural Poverty Decline: A Perspective from Indian Sample Survey and Village Study, *Working Paper 44*, Asia Research Centre, London School of Economics and Political Science.
11. Hazell, Peter B, Derek Headey, Alejandro Nin Pratt & Derek Byerlee, (2011). Structural Imbalances and Farm and Nonfarm Employment Prospects in Rural South Asia, *Report for the World Bank*, Washington DC.
12. Haltmaier, J, (2013). Challenges for the Future of Chinese Economic Growth, *International Finance Discussion Papers*, Board of Governors of the Federal Reserve System.
13. Papola, T.S. & Sahu, P. P, (2012). Growth and Structure of Employment in India Long-Term and Post-Reform

Performance and the Emerging Challenge. A Study Prepared as a Part of a Research Programme, structural Changes, Industry and Employment in the Indian Economy Macro-economic Implications of Emerging Pattern, Indian Council of Social Science Research, New Delhi.

14. Parikh, Kirit, Hans, P., Binswanger-Mkhize, Probal Ghosh & Alwin D'souza, (2011). Double Digit Inclusive Growth: Not Without Robust Agricultural Growth. Background paper to Centennial Group, Washington DC.
15. Sravanthi, K, (2012). Utilization of Benefits from Governmental Programmes or Schemes by Farmers in Andhra Pradesh – An Institutional Economic Analysis. *M.Sc. (Agri.) Thesis*, University of Agricultural Sciences, Bangalore, Karnataka.
16. World Bank, 2010, Perspectives on Poverty in India: Stylized Facts from Survey Data, *World Bank report*, Washington DC.
17. http://censusindia.gov.in/2011-prov-results/data_files/india/Final_PPT_2011_chapter3.pdf
18. http://en.wikipedia.org/wiki/Three-sector_hypothesis
19. <http://www.ifpri.org/sites/default/files/publications/wcaotn02.pdf>

